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LEPTINUS AMERICANUS LECONTE TAKEN ON A SHREW (COLEOPTERA-LEPTINIDÆ)

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A fairly extensive literature has developed on the curious "mammal nest beetles" and their relationship with their hosts. Several cases have been recorded of beetles actually being taken in the fur of mammals and it is hoped that with the accumulation of data the significance of this occurrence will become apparent.

One of the authors, Edwards, has taken these beetles several times in the fur of a shrew, *Blarina brevicauda talpoides* (Gapper). The animals had been caught in live-traps and the beetles were on them when they were examined for ectoparasites. The actual records are as follows: 2 ♀♀, 9-Mile Swamp, Hubbardsville, N. Y., 1 in Nov. and 1 in Dec., 1946; 1 ♂, 1 ♀, Lake Piseco, N. Y., May 3, 1947; 1 ♂, Murphy Woods, Hamilton, N. Y., June 3, 1947. No specimens were taken in the nests.

Mr. H. S. Barber, of the U.S.D.A. Division of Insect Identification, suggests that this is a case of phoresy, with the primary source of the beetles being the nest of another mammal, whose burrows the shrews had invaded. He gives three cases, in litt., where large numbers have been taken in the nests of moles and one in the nest of a bumblebee. Dury, 1892, tells of getting 107 specimens in a nest in which he had captured a specimen of *Blarina brevicauda*. The caption of his article is "What I found in the Nest of a Field Mouse" so there is some doubt as to the actual identity of the nest. Numerous European references to *Leptinus* mention mice, moles and shrews.

Others mention finding them in caves. As will be pointed out below, these do not refer to the 'same species as our *Leptinus*.

When the specimens were checked by Werner, the other author, it was discovered that there were significant differences between the series at hand and the specimens used in the figures of the European species by Jeannel and by Sharp and Muir. This led to closer examination. There is little if any difference in general appearance. The only discernible differences were the wider eighth antennal segment, which was narrower than the adjacent segments in *testaceus*, and the slightly wider clypeus. When the male genitalia were examined, it was found that great disparity exists. Our species has the parameres wider and with eight apical setæ in addition to the two long subapical setæ. Both Jeannel's and Sharp and Muir's figures of the male genitalia show only two long subapical setæ and some differences in general shape and proportion. Jeannel figures the tips of the mandibles as simple, while our species has the tips bifid. Two specimens dissected by Mr. Barber and kindly loaned for comparison, one from Barèges, Pyrénées, France, and the other from Torrington, England, have genitalic characters as in the figures of Sharp and Muir and of Jeannel. The mandibles of these specimens were not examined as this would entail further dissection of the specimens and placing the mandibles on a slide.

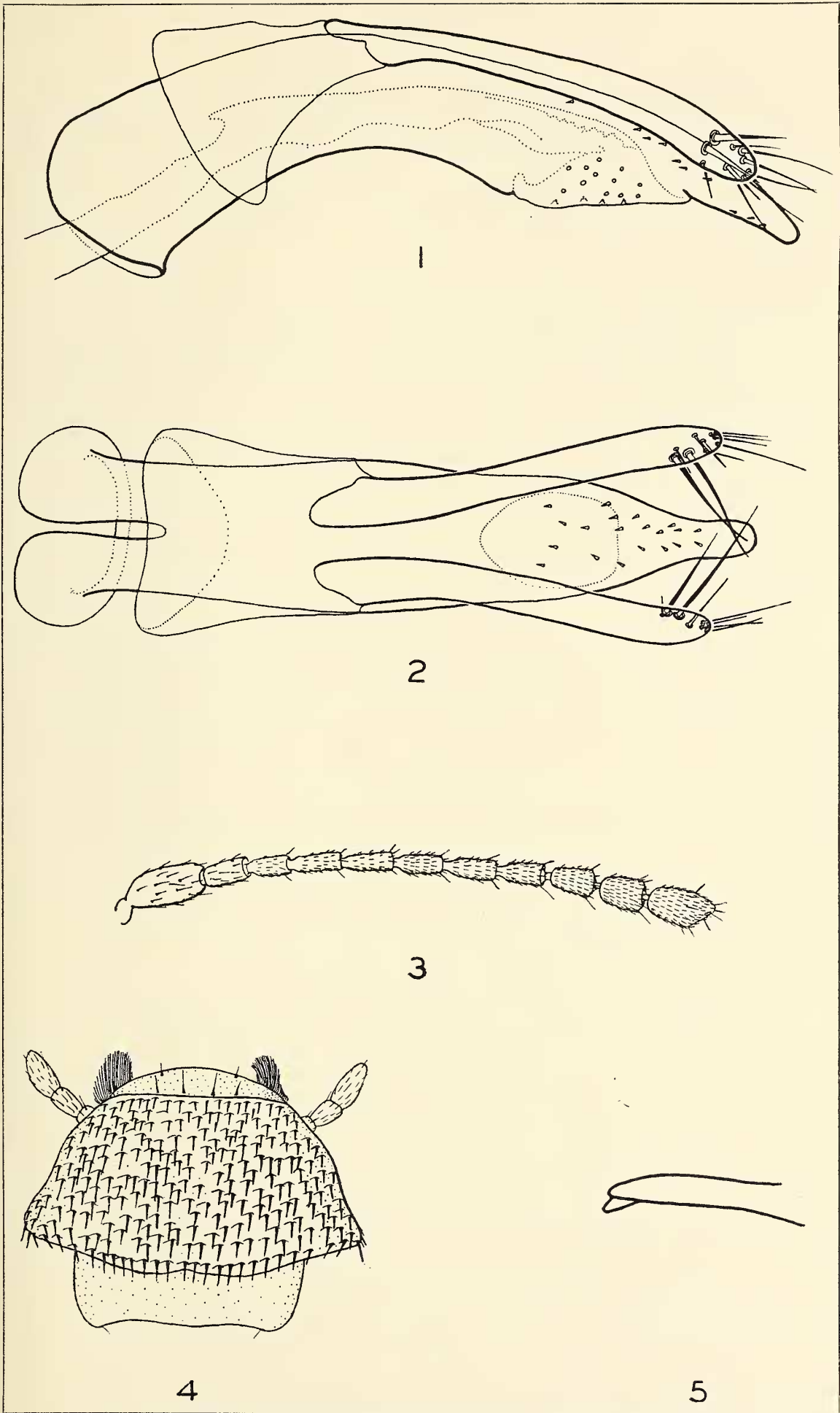
Since major differences in the genitalia usually are taxonomically significant, our *Leptinus* is surely different from *Leptinus testaceus* (Müll.). *Leptinus americanus* LeConte was described from Iowa. Unfortun-

EXPLANATION OF PLATE 8

Leptinus americanus Lec.

Camera lucida drawings of New York specimens mentioned in the text. Figs. 3-5 from cleared specimens on slides, 1 & 2 from dissection of an alcoholic specimen. All deposited in M.C.Z.

- Fig. 1. Male genitalia, left lateral view, 238 ×.
- Fig. 2. Male genitalia, dorsal view, 238 ×.
- Fig. 3. Right antenna of female, dorsal view, 49 ×.
- Fig. 4. Dorsal view of head of female, 49 ×.
- Fig. 5. Tip of left mandible, ventral view, 382 ×.



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ately, all four specimens in the type series are females so that no check could be made of the male genitalia but the external characters check perfectly with the New York series. Undoubtedly, most or all of the specimens from eastern North America should be assigned to this species.

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